

The e-Parking System in Trikala Reduces Traffic Congestion and Alleviates Energy Poverty

Client Profile: The Municipality of Trikala

Trikala is a city located in central Greece, specifically in the Thessaly region, and boasts a population of around 81,360 residents. The city is known for its innovative urban projects and initiatives. It has implemented smart city technologies and sustainable practices, including Novoville’s Controlled Parking System (CPS) and CRM.

Challenges:

The Municipality of Trikala faced two primary challenges: reducing traffic congestion and providing relief to citizens living on the brink of energy poverty due to the increased cost of electricity. In addition, there was a lack of parking management tools, fragmented technology systems, and limited integration between various city departments. Other objectives included improving the daily lives of residents and drivers, stimulating commercial activity, and aligning with European standards and best practices for Sustainable Urban Mobility.

Technical Solution:

Novoville implemented a modular solution to address the identified challenges in Trikala. The solution comprised a citizen mobile app & web app, APIs, and a cloud management dashboard. Key components of the solution include:



Motorist Mobile App: The Novoville app enables drivers to purchase parking time in seconds, top up their e-wallet, and extend their parking session remotely.



Citizen Reports: The same app allows users to submit requests/issues to the Municipality, receive live updates regarding their request, in-app announcements, news etc.



Point of Sale (POS) App: The app installed on third-party devices such as kiosks, mini-markets, etc., allows the purchase of parking time via cash or card for those motorists without smartphones.



Web-based Resident Permit Application: A web app for permanent residents to apply for parking permits.



Municipal Police Mobile App: An app for municipal police officers to conduct on-site inspections and issue fines.



Central Management System: A centralised system for parking & incident management and municipal police operations.

Results and Highlights:

Within 9 months, the implementation of the Novoville platform in Trikala achieved significant results:

- **Reduction in Traffic Congestion:** The CPS successfully reduced traffic congestion in Trikala by 32% according to motion sensors installed by the Municipality of Trikala. This decrease led to lower emissions and less hassle in finding parking spaces. Furthermore, the average parking time was reduced from 9.5 hours to just 3 hours, resulting in a 50% increase in the probability of finding an available parking spot.
- **Alleviation of Energy Poverty:** Through the proceeds of the CPS, approximately 872,027 kilowatt-hours (KWh) have been collected in 9 months. These are allocated to financially vulnerable citizens enrolled in the social welfare structures of the Municipality of Trikala to cover their monthly electricity bills. The CPS of the Municipality of Trikala is the first controlled parking system in Greece to provide direct financial support to financially vulnerable households.
- **User Acceptance and Usage Statistics:** A total of 15,500 users have registered on the Novoville app. The system has recorded 335,650 successful parking transactions, equivalent to a cumulative parking time of 460,000 hours.

Testimonial

“The system allows our city to ‘breathe’, supports efforts toward a cleaner environment, enables smooth mobility for individuals with disabilities, and encourages pedestrians and cyclists to utilise roads and sidewalks more effectively. It is through the collective efforts of all stakeholders that we can create a more sustainable and functional city. As we move forward, we acknowledge potential challenges, engage in discussions, and provide solutions for the betterment of our community.”

Dimitris Papastergiou, Former Mayor of Trikala